

Appln. No. 10/806,749
Amdt. dated November 17, 2005
Reply to Office Action of August 30, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 34 (previously canceled).

Claim 35 (currently amended). A thermal imaging member comprising

(a) a substrate having first and second opposed surfaces;

(b) first and second image-forming layers carried by said first surface of said substrate, said first image-forming layer being closer to said first surface of said substrate than said second image-forming layer, said first image-forming layer having a lower activation temperature than said second image-forming layer; and

(c) a first interlayer positioned between said first and second image-forming layers;

(d) a third image-forming layer carried by said first surface of said substrate, said third image-forming layer being farther from said first surface of said substrate than said second image-forming layer and having a higher activation temperature than said second image-forming layer; and

(e) a second interlayer positioned between said second and third image-forming layers.

Claim 36 (currently amended). The thermal imaging member as defined in claim 35 wherein at least one of

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said first and second interlayer interlayers comprises an inert material.

Claim 37 (currently amended). The thermal imaging member as defined in claim 35 wherein at least one of said first and second interlayer interlayers includes a material which undergoes a phase change upon the application of heat thereto.

Claim 38 (currently amended). The thermal imaging member as defined in claim 35 wherein said first ~~and~~ second and third image-forming layers each has a thickness of from about 0.5 to about 4.0 μm .

Claim 39 (currently amended). The thermal imaging member as defined in claim 35 wherein at least one of said first ~~and~~ second and third image-forming layers has a thickness of about 2 μm .

Claim 40 (original). The thermal imaging member as defined in claim 35 wherein said first interlayer has a thickness of from about 1 to about 40 μm .

Claim 41 (original). The thermal imaging member as defined in claim 35 wherein said first interlayer has a thickness of from about 14 to about 25 μm .

Claim 42 (canceled hereby).

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Claim 43 (currently amended). The thermal imaging member as defined in claim 42 35 wherein said second interlayer is thinner than said first interlayer.

Claim 44 (original). The thermal imaging member as defined in claim 42 wherein said first image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer material, each having a melting point of from about 90°C to about 140°C, said second image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer, each having a melting point of from about 150°C to about 250°C, said third image-forming layer having a thickness of from about 0.5 to about 4 μm and comprising a leuco dye having a melting point of at least 150°C and a developer having a melting point of at least 250°C.

Claim 45 (original). The thermal imaging member as defined in claim 42 wherein said first image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer material, each having a melting point of from about 90°C to about 140°C, said second image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer, each having a melting point of from about 150°C to about 250°C, said third image-forming layer having a thickness of from about 0.5 to about 4 μm

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and comprising a compound which forms color intramolecularly at a temperature of at least 300°C in from about 0.1 to about 2 milliseconds.

Claim 46 (original). The thermal imaging member as defined in claim 35 and further including a topcoat layer and a backcoat layer.

Claim 47 (canceled hereby).

Claim 48 (canceled hereby).

Claim 49 (original). The thermal imaging member as defined in claim 35 wherein the thickness of said substrate is less than about 20µm.

Claim 50 (original). The thermal imaging member as defined in claim 35 wherein said substrate has a thickness of about 5 µm.

Claims 51 - 56 (canceled previously without prejudice).

Claim 57 (new). The thermal imaging member as defined in Claim 35 wherein at least one of said first second and third image-forming layers comprises a compound which forms color intramolecularly.

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Claim 58 (new). A thermal imaging member comprising
(a) a substrate having first and second opposed
surfaces;

(b) first and second image-forming layers carried
by said first surface of said substrate, said first
image-forming layer being closer to said first surface
of said substrate than said second image-forming layer,
said first image-forming layer having a lower activation
temperature than said second image-forming layer; and
(c) an interlayer positioned between said first and
second image-forming layers, wherein said interlayer
includes a material which undergoes a phase change upon
the application of heat thereto.

Claim 59 (new). The thermal imaging member as
defined in Claim 58 wherein said interlayer has a
thickness of from about 1 to about 40 μm .

Claim 60 (new): The thermal imaging member as
defined in claim 58 wherein said first interlayer has a
thickness of from about 14 to about 25 μm .

Claim 61 (new). The thermal imaging member as
defined in claim 58 wherein at least one of said first
and second layers comprises a compound which forms color
intramolecularly.